

vival (PFS) and progressive disease, using a parametric extrapolation of the NO16966 phase III trial survival data. The predicted time spent in each health state was weighted using published CRC utility scores to account for patient quality of life and to estimate the Quality Adjusted Life Years (QALYs) for both bevacizumab + XELOX and FOLFOX. One-way sensitivity analysis was performed in order to evaluate the uncertainty around the base case estimate of the incremental cost effectiveness ratio (ICER) for bevacizumab + XELOX compared with FOLFOX. Uncertainty surrounding the parameters of the model was evaluated by modifying the costs and parametric survival assumptions. **RESULTS:** The base case cost per QALY was estimated to be £25,806. The highest ICER was observed when only a 2-year time horizon was taken (£35,241); this, however, does not capture all the costs and benefits of the interventions. The ICER for the scenario in which 100% of FOLFOX patients did not require an inpatient stay was £31,669 and decreased to £14,431 when full sensitivity analysis of the administration costs was performed. **CONCLUSIONS:** This sensitivity analysis illustrated that the combination of bevacizumab and XELOX demonstrated a stable ICER. Substantial cost savings and health benefits gain through the use of capecitabine and oxaliplatin in combination with bevacizumab showed to be a cost-effective treatment strategy.

## PCN43

#### MODELING THE COST-EFFECTIVENESS OF PROSTATE CANCER TREATMENT WITH PARTICLE THERAPY

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**OBJECTIVES:** Radiotherapy (RT) with charged particles, protons and carbon ions (c-ions) offers clinical advantages in cancer treatment compared to conventional RT with photons, including better tumor control and/or less side-effects. The costs of particle therapy (PT) are however, much higher than of the photon therapy. Therefore, the cost-effectiveness of PT as opposed to the best current photon therapy was examined. **METHODS:** In a cost-effectiveness Markov model the prostate cancer treatments with (A) c-ions and (B) photons were evaluated. The outcomes were survival, quality adjusted survival and costs. The therapy effects and quality of life estimates were derived from the literature. Toxicity of treatment was taken into account. Direct medical costs were assigned. The RT costs were based on an extensive cost analysis. The time horizon of the model was 10 years. The analyses were run for a cohort of 70 year old. The study was performed from the health care perspective. **RESULTS:** The expected total health care costs per patient over 10 years were: A) €22,880, and B) €13,550. The expected life years were 8.78 and 8.68, respectively. The difference in the clinical effects became larger, when quality of life was accounted for. The quality of life adjusted life years (QALY's) were A) 7.82 and B) 7.59. Extra costs per QALY gained were €40,170 (up to €65,000 in a sensitivity analysis). **CONCLUSIONS:** The preliminary results indicate that with a threshold of €80,000 per QALY, treatment with c-ions is cost-effective (for age 70). The model will be further adapted. Firstly, treatment with protons will be included. Secondly, analyses will be performed for different age and risk categories. Thirdly, the probability that the different treatment modalities are cost-effective, given the existing uncertainty, will be assessed. Finally, an expected value of perfect information (EVPI) analysis will be conducted.

## PCN44

#### COST MINIMIZATION ANALYSIS OF ADVANCED GASTRIC CANCER TREATMENT WITH CAPECITABINE/CISPLATIN (XP) VS. 5-FU/CISPLATIN (FP) REGIMENS IN POLISH SETTING

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**OBJECTIVES:** Evaluation of costs of oral capecitabine and cisplatin (XP) treatment vs. intravenous 5FU and cisplatin (FP) infusion from public payer's perspective in Poland. **METHODS:** Based on systematic review of medical databases similar clinical efficacy for compared treatment options was proved. Therefore a cost minimization analysis was performed to identify costs and estimate potential benefits of 5FU/cisplatin replacement with capecitabine/cisplatin scheme, from public payer perspective. Efficacy and safety data were derived from clinical trial published by Y.Kang et al. (JCO, 2006 ASCO Annual Proceedings). A pharmacoeconomic model was used to compare costs of these two therapies. Costs of alternative therapies were estimated based on clinical results on actual dose and number of administrations. Clinical experts panel estimated typical treatment patterns and costs of treating major AEs in Poland. **RESULTS:** Mean duration of hospitalization in XP arm was 5.11 days and in FP arm was 22.15 days. The substitution of 5-FU infusion by oral capecitabine reduced the number of hospitalization days per cycle. Drug administration costs were significantly higher on FP scheme (8800PLN) in comparison to XP (1515PLN). Total drug cost per patient on XP scheme was 6384. 41PLN (1 PLN = 3.4 EUR) and 708.20PLN on FP scheme. AE profiles were similar. Total costs (drug, administration and AE) was lower for XP scheme, generating 1614.12PLN savings per patient/year. Sensitivity analysis was conducted for number of patients treated with 5FU/cisplatin requiring intravenous access and for the drug reimbursement level. Reimbursement level doesn't influence conclusions drawn from the basic analysis. Change in percentage of patients requiring intravenous access influence the conclusions (breaking point 43%). **CONCLUSIONS:** Replacing 5FU/cisplatin scheme with capecitabine/cisplatin in treatment of advanced gastric cancer patients from public payer in Poland is cost saving.

## PCN45

#### ECONOMIC ANALYSIS OF THE CLINICAL OUTCOMES OF SURGICAL THERAPY (COST) TRIAL COMPARING LAPAROSCOPICALLY-ASSISTED COLECTOMY (LAC) WITH OPEN COLECTOMY (OC) FOR COLON CANCER

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**OBJECTIVES:** The randomized COST trial revealed no significant differences in clinical or quality-of-life endpoints between LAC and OC for stage I-III colon cancer. We conducted a cost-minimization analysis from a third-party payer perspective to test for differences in costs between procedures from surgery through 2 months of follow-up. **METHODS:** Resource use was collected on all patients, including: inpatient and ICU days, reoperations, surgery and anaesthesia times, use of laparotomy and laparoscopic instruments, cartridges, reusable and disposable trocars, and outpatient visits for surgery-related complications. Professional services were valued based on Medicare reimbursement rates; all other unit costs were derived from charges adjusted by ratios-of-costs-to-charges for patients treated at two centers, one academic (A) and one community (C). 21% of patients assigned